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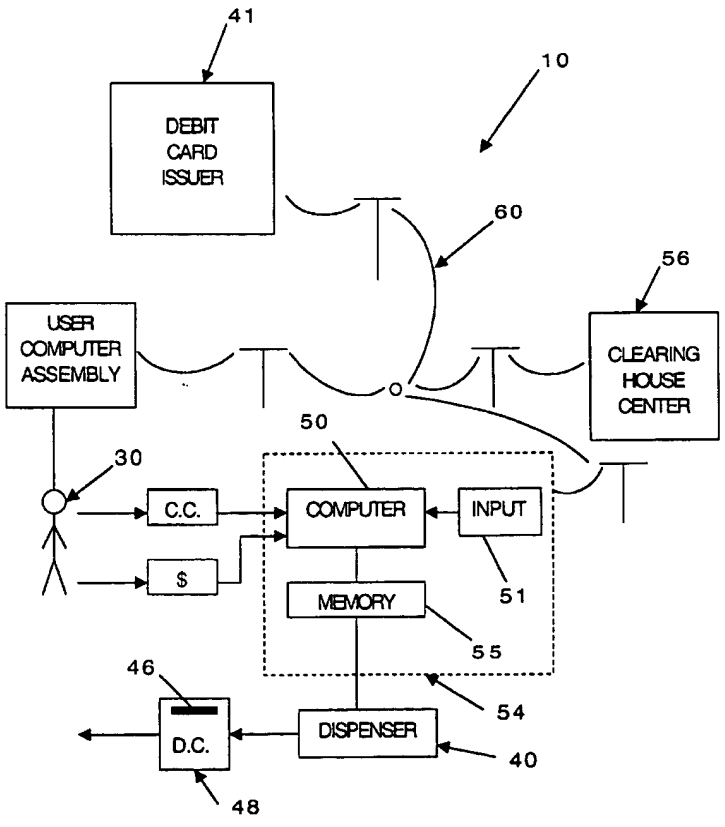
(54) Title: PREPAID DEBIT CARDS SYSTEM



(57) Abstract: A system for debit cards using a computerized assembly at the point of sale for the cards connected to a remote clearinghouse. The computerized assembly receives and assembles a block of information required by the card issuer and/or optionally entered by the card purchaser. The card issuer allows the purchaser to design the conditions for withdrawing the card's funds and also the level of security required. The cards preferably include a digital storage member for saving the unique identification number associated with the card. More than one card can share the same identification number so they can access the same line of credit. Also, more than one personal identification number (PIN) can be issued with different conditions for each. Software at the clearinghouse includes the ability of selectively transmitting transactional information to predetermined electronic mail addresses for real time tracking of the cards usage.

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I. TITLE: *PREPAID DEBIT CARDS SYSTEM*

II. TECHNICAL FIELD

The present invention relates to a prepaid debit card system that operates through computerized terminals, such as point-of-sale (POS) terminals and automated teller machines (ATM).

III. BACKGROUND ART

1. Description of the Related Art

Applicant believes that the closest reference corresponds to U.S. patent No. 5,696,908 issued to Muehlberger in 1997 for a telephone debit card dispenser and method. However, it differs from the present invention because it does not disclose, inter alia, the use of a system to provide "virgin" debit cards that can be selectively programmed to include any selected prepaid amount of funds (line of credit), security information (PINs, passwords, mother's maiden name, etc.) and other tracking information. Additionally, the resulting cards affixed data and instructions include conditions for the validation and availability of those funds or line of credit, such as, period of time between use or withdrawals, day of the week, amounts or any other constrains the purchaser of the card desires in order to match the particular circumstances of the case. For instance, a debit card purchaser may obtain the card for a child in college in a remote city and desires to control the expenditures of the end user. The purchaser can include his or her email for instance, and be notified every time the card

is used and the establishment where the card was used. Other uses involve the distribution of the cards to travelling salespersons who are authorized to use the card in a particular territory only.

Other patents describing the closest subject matter provide for a number of more or less complicated features that fail to solve the problem in an efficient and economical way. None of these patents suggest the novel features of the present invention.

IV. SUMMARY OF THE INVENTION

It is one of the main objects of the present invention to provide a system for selling, dispensing and administering debit cards that require a minimum of paperwork, maintenance and financial disclosure from a card purchaser.

It is another object of this invention to provide a system that permits a user to acquire such debit cards from widely available computerized terminal assemblies such as point-of-sale (POS) or ATM terminals using cash, debit and/or credit cards, check cards or ATM cards.

It is yet another object of the present invention to provide a system that permits a user to obtain more than one debit card associated with the same identifying serial number, or linked to the same number, for accepting deposits and withdrawals to readily effect transfers of funds to remote locations, including foreign countries.

It is still another object of this system to allow a card issuer to offer valuable incentives to users when the debit card is used for specific transactions and/or in predetermined geographical areas.

It is still another object of the present invention to provide a system that is portable from one computerized terminal to another, or that it can be used with ATM (automatic teller machine) machines, and that permits utilizing this business process in daily commerce for the use of bank cards for transactions involving payment of merchandise or services.

Another object of the invention is to provide a card system that is capable of generating real time tracking information that can be selectively reported to one or more users.

Further objects of the invention will be brought out in the following part of the specification, wherein detailed description is for the purpose of fully disclosing the invention without placing limitations thereon.

V. BRIEF DESCRIPTION OF THE DRAWINGS

With the above and other related objects in view, the invention consists in the details of construction and combination of parts as will be more fully understood from the following description, when read in conjunction with the accompanying drawings in which:

Figure 1 represents the hardware used in the present invention.

Figure 2 is a flow chart summarizing the process steps followed in typical transactions.

VI. DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the drawings, where the present invention is generally referred to with numeral **10**, it can be observed that it basically includes point-of-sale (POS) terminal **54** for controlling the issuance of debit cards **48**. Terminal **54** can also be implemented with other computerized assemblies, such as an ATM (automated teller machine). POS, in this application, is understood to be the location where the transactions involving the acquisition or reloading of card **48** takes place. Terminal **54** includes input assembly **51** basically comprising a keypad with numbers, letters, names, signs, graphics, magnetic card reader, all integrated in terminal **54**, in the preferred embodiment. The purchaser is represented with numeral **30** in figure 1. A merchant or dispenser of the card is referenced with numeral **40**. Dispenser **40** can be implemented with an automatic mechanism that dispenses cards **48** upon validation or activation by terminal **54** or merely a person who releases cards **48** upon receiving the validation signal. The entity issuing card **48** is card issuer **41** and is considered the operator of debit card system **10**. Computerized clearing house **56** is connected through telecommunications network **60** to terminals **54** and the internet in general. For the purposes of this application, purchaser **30** will be deemed a debit card purchaser or holder. Dispenser **40** is the merchant or the entity or place selling the card and an issuer will be the entity or financial institution issuing the card. Dispenser **40** has debit cards with

a digital storage member **46** (typically a magnetic strip) wherein a unique identifying serial number has been recorded and identifies debit card **48**. Use of member **46** and card **48** is intended to facilitate the use of system **10**. Terminal **54** has the necessary input and output hardware and software for performing different transactions such as card charges and card credits, computer assembly **50** and associated storage or memory assembly **55**.

As shown in figure 1, card purchaser **30** initiates the process when approaching a merchant offering the sale of prepaid debit cards through terminals **54**. Different prepaid amounts of cards can be made available or request a particular amount. Once purchaser **30** decides the funding amount desired for the debit card to be purchased a menu or series of questions will have to be answered depending on the conditions purchaser **30** wants to impose for withdrawing funds and how much security in the use of the card is desired. Government regulations may require the disclosure of the purchaser's particulars, namely, name, address, and the social security number, for cards funded over a predetermined limit. Purchaser **30** (or the card holder) validates the funds in the card for future use by entering a required confidential number and/or letters. This PIN (personal identification number) is preferably selected by the purchaser without disclosing it to the merchant. Additional security information, such as a purchaser's mother's maiden name can be required or made optional. Issuer **41** determines the amount of information it will require, or make optional, leaving latitude and flexibility for the purchaser as to how much information wants to disclose or security safeguards placed. The more information he or she enters the more secure the debit card will be.

Another option is adding a second PIN number allowing the purchaser to have the ability to design the terms of withdrawal from the debit card to fit his or her objectives. Purchaser **30** can then transmit the debit card serial number and second PIN number to a designated user with more or less restrictions (then the first PIN number) for the withdrawal of funds. The information entered by the debit card purchaser is stored in storage assembly number **55** associated with computer assembly **50** for subsequent future transmission to clearinghouse **56**, as shown in Fig. 1.

The following step pertains to entering information about the transaction such as the amount to be deposited (to fund the card) and method of payment (cash, bank card, etc.). If it is a cash transaction, the merchant collects the cash as if it is a routine transaction but entering identification number of the debit card being purchased. At this time, terminal **54** transmit the block of information that has been assembled to clearing house assembly **56** that in turn issues a validating signal back to terminal **54**.

Purchaser **30** obtains debit card for the amount he or she has prepaid minus a small processing fee. The net prepaid amount is credited, and the debit card is slid into terminal **54** (POS) this time as a credit charge of the net prepaid amount.

More than one card can be dispensed to the same purchaser and the serial numbers linked to each other. Software instructions and data included in clearinghouse **56** will make them look as if they were only one number. Alternatively, the two, or additional, cards are given the

same serial number. In this manner, a card purchaser may give one or more cards to others (traveling salesman, child in college away from home, etc.) who will be able to use the debit card for the available remaining prepaid funds and under the restrictions associated with the PIN number given to them. Purchaser 30 or authorized users can then reload the debit card for remote usage by others, thus effectively constituting an instantaneous transfer of funds.

The particulars of the user and the transaction, as well as the serial number(s) of the debit card(s) being dispensed, are assembled in a predetermined manner and forwarded through network 60 to clearing house 56, and through the existing facilities provided by point-of-sale terminals 54. Additionally, purchaser 30 may include in his/her particulars, an electronic mail address to receive information about each transaction in real time. Software in clearinghouse 56 is programmed to forward the particulars of each transaction (amount, establishment where purchase took place, etc..) to a user or users. In this manner, purchaser 30 or any other designated person, can track, in real time, the transactions involving card 48, as they occur.

The foregoing description conveys the best understanding of the objectives and advantages of the present invention. Different embodiments may be made of the inventive concept of this invention. It is to be understood that all matter disclosed herein is to be interpreted merely as illustrative, and not in a limiting sense.

VII. INDUSTRIAL APPLICABILITY

It is apparent from the previous paragraphs that an improvement of the type for such a prepaid debit cards system through computerized terminals is quite desirable to permit a user to acquire such debit cards from widely available terminals accepting cash, debit and/or credit cards, check cards or ATM cards requiring a minimum of paperwork, maintenance and financial disclosure from a card purchaser.

This system for dispensing prepaid debit cards through computerized terminals is also quite desirable to permit a user to obtain more than one debit card associated with the same identifying serial number for accepting deposits and withdrawals to readily effect transfers of funds to remote locations, including foreign countries. Additionally, a user can design the terms and conditions for using the funds loaded in the debit card as well as selectively providing real time tracking information to the user(s) and/or designees.

VIII. CLAIMS

What is claimed is:

1. A system for dispensing and validating prepaid debit cards, comprising:

A) a computerized assembly including first computer means with associated first storage means that further includes first output means and first input means for entering information from a user pertaining to his or her particulars and the particulars of the transaction in said first storage means, and further including means for validating the funds made available through said input means so that a line of credit is computed by said first computer means and stored in said first storage means with a validation signal and a block of information is assembled for transmission from said output means;

B) means for dispensing at least one debit card for each of said transaction, and each of said debit cards including means for storing a unique identification number, and said debit cards being dispensed only after a first predetermined number of conditions have been met and said validation signal is received from said computerized assembly and further including means for including said unique identification number in said block of information;

C) a remotely located computerized clearing house assembly, including second computer means with associated second storage means, second input and output means for receiving and sending said block of information from and to said computerized assembly and said second storage means further including data and instructions for processing said block of information so that a line of credit is entered for each of said unique identification numbers; and

D) network means for connecting said computerized assembly to said clearing house assembly.

2. The system set forth in claim 1, wherein the instructions and data in said second storage means permit a user to link more than one of said identification numbers of said debit cards to one line of credit thereby permitting more than one user to simultaneously access said credit line.

3. The system set forth in claim 2 wherein the instructions and data in said second storage means permit an issuer of said debit cards to affect the line of credit upon the occurrence of a second number of predetermined conditions.

4. The system set forth in claim 3 wherein said second number of predetermined conditions includes the passage of time with unused balances.

5. The system set forth in claim 4 wherein users can send and receive funds through the use of linked debit cards over a network of remotely distributed computerized assemblies.

6. The system set forth in claim 5 wherein said line of credit is calculated by an issuer in one or more preselected foreign currencies.

7. The system set forth in claim 6 wherein a predetermined number of incentives are added to said line of credit, selectively, upon the occurrence of said second number of predetermined conditions.

8. The system set forth in claim 1 wherein said second storage means further includes instructions and data for transmitting to predetermined electronic mail addresses a predetermined amount of information every time a transaction occurs involving a card identification number.

9. The system set forth in claim 8 wherein said second storage means further includes instructions and data for accepting a third number of predetermined conditions before said transmissions to said predetermined electronic mail addresses occur.

10. The system set forth in claim 9 wherein the instructions and data in said second storage means permit a user to link more than one of said identification numbers of said debit cards to one line of credit thereby permitting more than one user to simultaneously access said credit line.

11. The system set forth in claim 10 wherein the instructions and data in said second storage means permit an issuer of said debit cards to affect the line of credit upon the occurrence of a second number of predetermined conditions.

12. The system set forth in claim 11 wherein said second number of predetermined conditions includes the passage of time with unused balances.

13. The system set forth in claim 12 wherein users can send and receive funds through the use of linked debit cards over a network of remotely distributed computerized assemblies.

14. The system set forth in claim 13 wherein said line of credit is calculated by an issuer in one or more preselected foreign currencies.

15. The system set forth in claim 14 wherein a predetermined number of incentives are added to said line of credit, selectively, upon the occurrence of said second number of predetermined conditions.

16. The system set forth in claim 1 wherein said block of information includes more than one personal identification number and a respective set of limitations associated with each of said personal identification numbers for the withdrawal of funds.

17. The system set forth in claim 16, wherein the instructions and data in said second storage means permit a user to link more than one of said identification numbers of said debit cards to one line of credit thereby permitting more than one user to simultaneously access said credit line.

18. The system set forth in claim 17 wherein the instructions and data in said second storage means permit an issuer of said debit cards to affect the line of credit upon the occurrence of a second number of predetermined conditions.

19. The system set forth in claim 18 wherein said second number of predetermined conditions includes the passage of time with unused balances.

20. The system set forth in claim 19 wherein users can send and receive funds through the use of linked debit cards over a network of remotely distributed computerized assemblies.

21. The system set forth in claim 20 wherein said line of credit is calculated by an issuer in one or more preselected foreign currencies.

22. The system set forth in claim 21 wherein a predetermined number of incentives are added to said line of credit, selectively, upon the occurrence of said second number of predetermined conditions.

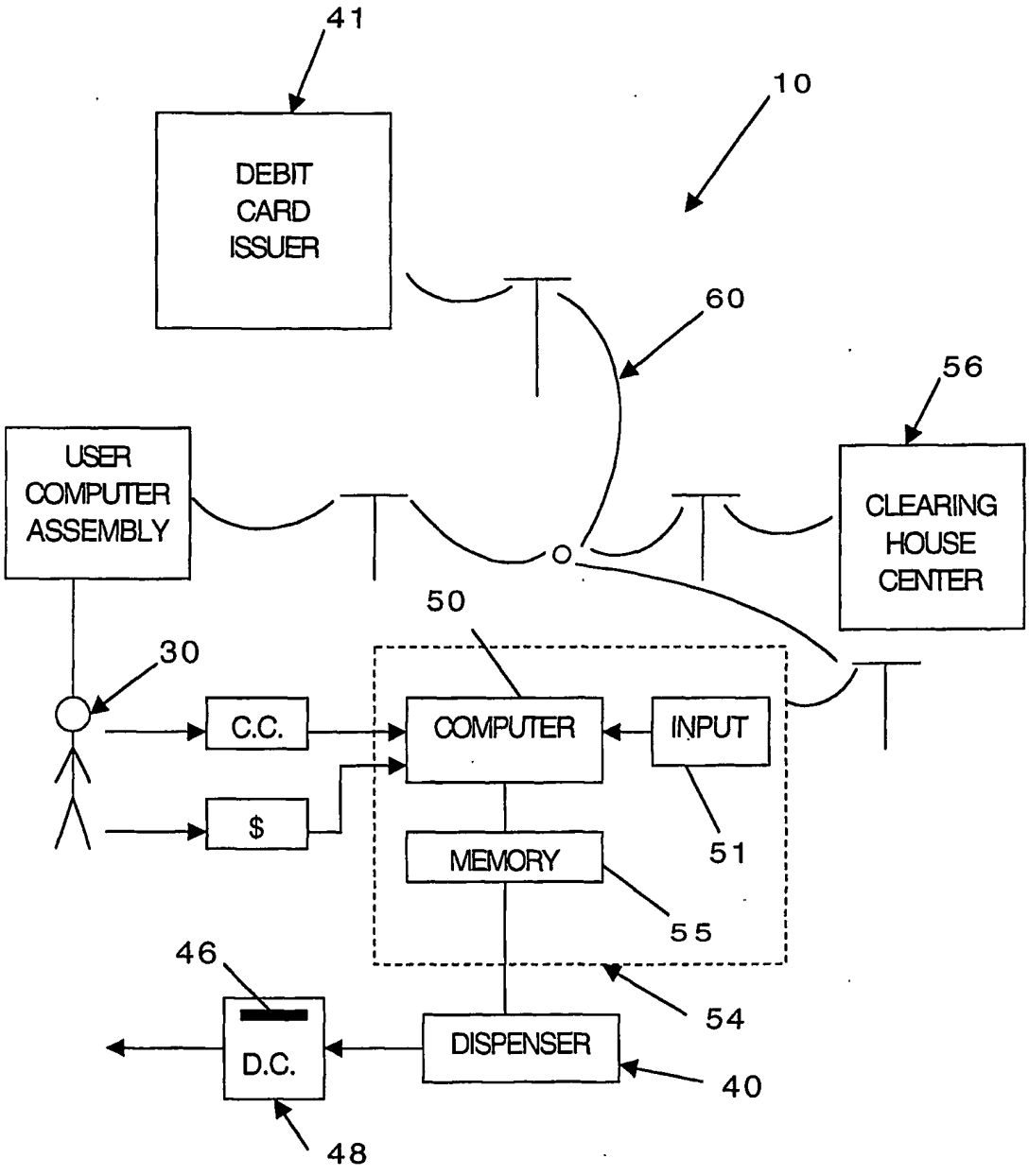
41
10
DEBIT CARD ISSUER
60
56
USER COMPUTER ASSEMBLY
CLEARING HOUSE CENTER
50
30
C.C.
COMPUTER
INPUT
$
MEMORY
51
55
46
54
D.C.
DISPENSER
40
48

Figure 1

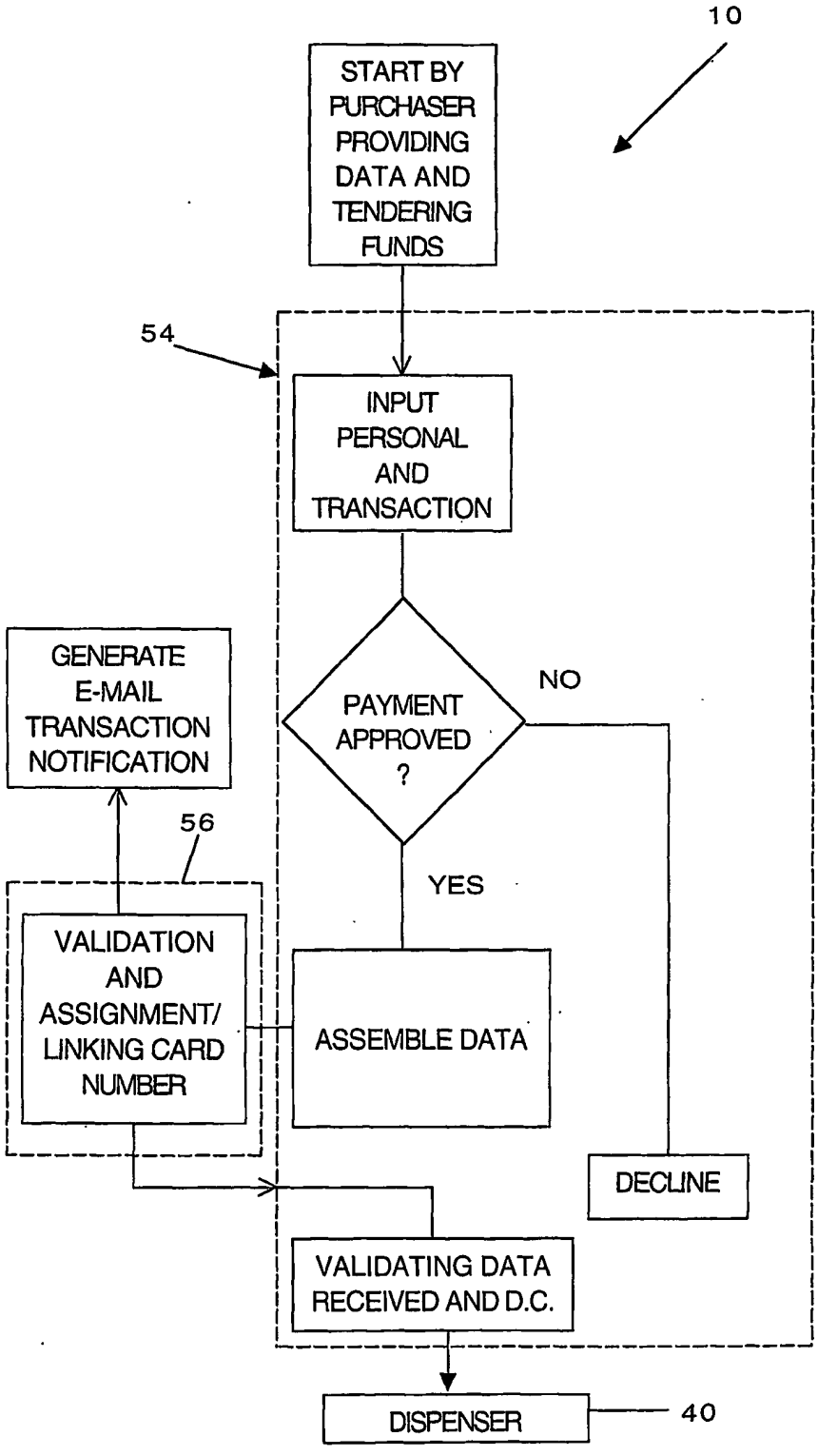
10
START BY PURCHASER PROVIDING DATA AND TENDERING FUNDS
54
INPUT PERSONAL AND TRANSACTION
PAYMENT APPROVED ?
NO
YES
GENERATE E-MAIL TRANSACTION NOTIFICATION
56
VALIDATION AND ASSIGNMENT/ LINKING CARD NUMBER
ASSEMBLE DATA
DECLINE
VALIDATING DATA RECEIVED AND D.C.
DISPENSER
40

Figure 2